

حمل الآن

مجاناً وحصرياً

امتحانات رقم (1)

الترم الاول



ALGEBRA – MODEL No 1**[Q1] Choose the correct answer:**

(1) $\sqrt{16} + \sqrt{9} = \sqrt{\dots\dots\dots}$

a) 7

b) 12

c) 25

d) 49

(2) If the ordered pair (1 , 2) satisfies the relation $2X + Y = K$, then $K = \dots\dots\dots$

a) 1

b) 3

c) 4

d) 5

(3) The additive inverse of $\frac{6}{\sqrt{2}}$ is $\dots\dots\dots$ a) $-2\sqrt{3}$ b) $2\sqrt{3}$ c) $-3\sqrt{2}$ d) $3\sqrt{2}$ (4) The median for the values 15 , 22 , 9 , 11 , 33 is $\dots\dots\dots$

a) 9

b) 15

c) 18

d) 90

(5) If the total area of cube is 54 cm^2 , then its volume $\dots\dots\dots \text{cm}^3$

a) 54

b) 44

c) 72

d) 27

[Q2] Complete each of the following:1) The slope of straight line which is parallel to x-axis is $\dots\dots\dots$ 2) $[1, 4] -]1, 4[= \dots\dots\dots$ 3) If the lowest boundary of a set is 5 and upper boundary is 9, then its center is $\dots\dots\dots$ 4) If X is positive real number, and $X^2 = 64$, then $\sqrt[3]{x} = \dots\dots\dots$

[Q3]A) The area of sphere is $36\pi \text{ cm}^2$, find:

- ① The radius of sphere
- ② The volume of sphere in term of π

B) If $X = \sqrt{5} - \sqrt{3}$, $Y = \frac{2}{\sqrt{5} - \sqrt{3}}$

- ① Proof that X, Y are two conjugate numbers.
- ② Then find the numerical value of the expression $(X + Y)^2$

[Q4]A) Find in \mathcal{R} the solution set of the inequality $-3 < 2X - 1 < 5$ and represent the solution on number lineB) Find three ordered pair satisfies the relation $Y = 3 - X$ and represent it graphically**[Q5]**A) Simplify to simplest form: $\sqrt{18} + 3\sqrt[3]{\frac{1}{3}} - \sqrt{8} - \sqrt[3]{9}$

B) Find the arithmetic mean for the following frequency table:

Sets	5-	15-	25-	35-	Total
Frequency	6	8	4	2	20

◆◆◆
End of the questions

ALGEBRA – MODEL No 2**[Q1] Choose the correct answer:**

(1) The ordered pair which satisfies relation $Y = 3X - 5$ is

- a) (2, 3) b) (3, 4) c) (0, 5) d) (1, 2)

(2) $\sqrt[3]{\sqrt{64}} = \dots\dots\dots$

- a) 2 b) 4 c) 8 d) Zero

(3) The volume of cube whose sum of its edges 60 cm is cm^3

- a) 25 b) 64 c) 100 d) 125

(4) The intersection point of ascending and descending cumulative frequency curves determines the on the set – axis.

- a) Median b) Mode c) Mean d) Order of median

(5) The volume of sphere whose radius 3 cm is $\pi \text{ cm}^3$

- a) 9 b) 27 c) 36 d) 108

[Q2] Complete each of the following:

1) The slope of straight line passing through (1, 3), (5, 3) is

2) $[0, 4] - \{4\} = \dots\dots\dots$

3) If The mode for the values: 5, 7, 8, $X + 3$ is 5, then $X = \dots\dots\dots$

4) If $\sqrt{3}X + 2 = 5$, then $X = \dots\dots\dots$

[Q3]

A) The right cylinder its lateral area $100\pi \text{ cm}^2$ and its height 10 cm.

- ① Find the radius of cylinder
 - ② Find the volume of cylinder in term of π
-

B) If $X = 2\sqrt{2} - 1$, $Y = \frac{1}{2\sqrt{2} - 1}$

- ① Proof that X, Y are two conjugate numbers.
 - ② Then find the numerical value of the expression $\frac{x+y}{xy}$
-

[Q4]

A) Find in \mathcal{R} the solution set of the inequality $1 \leq 2X + 3 < 7$ and represent the solution on number line

B) Prove that A (2, 5), B (1, 3), C (-3, -5) are collinear.

[Q5]

A) Simplify to simplest form: $\sqrt{50} - 2\sqrt[3]{3} - \frac{10}{\sqrt{2}} + \sqrt[3]{24}$

B) Find the arithmetic mean for the following frequency table:

Sets	5-	15-	25-	35-	Total
Frequency	6	8	4	2	20

◆ ◆ ◆

End of the questions

ALGEBRA – MODEL NO 3**[Q1] Choose the correct answer:**

(1) $|-5| + |3| + |\text{Zero}| = \dots\dots\dots$

- a) 2 b) -2 c) 8 d) -8

(2) $\sqrt{8} - \sqrt{2} = \dots\dots\dots$

- a) $\sqrt{6}$ b) $\sqrt{2}$ c) 2 d) 1

(3) The ordered pair (3, 2) doesn't satisfy the relation

- a) $Y+X=5$ b) $3Y-X=3$ c) $2Y+X=7$ d) $Y-X=1$

(4) $\sqrt{9+16} = 3 + \dots\dots\dots$

- a) 2 b) 3 c) 4 d) 5

(5) The lateral area of cube whose volume 64 cm^3 is cm^2

- a) 4 b) 8 c) 64 d) 96

[Q2] Complete each of the following:

1) The slope of straight line which is parallel to Y-axis is

2) $[1, 3] -]1, 3[= \dots\dots\dots$

3) If the lowest boundary of a set which center is 10, and upper boundary is 14, is.....

4) If the mode for values 1, 5, 6, $X+2$, 3 is 6, then $X = \dots\dots\dots$

[Q3]

A) If $X = \sqrt{5} + 2$, $XY = 1$. Find the value of $\frac{x+y}{xy}$

B) A metallic sphere its radius 6 cm, its melted and convert to right cylinder of radius 3 cm. find the height of cylinder

[Q4]

A) Find in \mathcal{R} the solution set of the inequality $4 < 3X + 1 < 10$ and represent the solution on number line

B) If the point A (4, 1), B (-2, 7), C (3, y) are collinear. Find the value of y.

[Q5]

A) Simplify to simplest form: $\sqrt[3]{24} - 3\sqrt[3]{\frac{1}{9}} + \sqrt[3]{-81} - \sqrt[3]{3}$

B) Find the arithmetic mean for the following frequency table:

Sets	10-	20-	30-	40-	Total
Frequency	7	9	3	6	25

◆◆◆

End of the questions

ALGEBRA – MODEL No 4**[Q1] Choose the correct answer:**

(1) $[-3, 4] \cap [2, 6] = \dots\dots\dots$

- a)
- $[-3, 6]$
- b)
- $[-3, 2]$
- c)
- $[4, 6]$
- d)
- $[2, 4]$

(2) The volume of cuboid whose dimensions $\sqrt{2}, \sqrt{3}, \sqrt{6} = \dots \text{ cm}^3$

- a) 6 b) 36 c)
- $6\sqrt{6}$
- d)
- $18\sqrt{2}$

(3) If the ordered pair (5,2) satisfy the relation $X+2Y=K$, then $K = \dots\dots\dots$

- a) 8 b) 9 c) 7 d) 6

(4) If the ordered of the median is fourth value, then number of these values is

- a) 6 b) 7 c) 8 d) 9

(5) If the slope of straight line passes through two points $(-3, X)$, $(-1, 1)$ equals 2, then $X = \dots\dots\dots$

- a) 2 b) 4 c) 6 d) -30

[Q2] Complete each of the following:

1) If the X is even number, then the next even number to it is

2) If $X \in [-3, 2]$, then $X^2 \in \dots\dots\dots$ 3) $-\sqrt{25} = \sqrt[3]{y}$, then $Y = \dots\dots\dots$

4) The intersection point of ascending and descending cumulative frequency curves is (50 , 132) then the median is

[Q3]

- A) Find in \mathbb{R} the solution set of the inequality then represents the solution on the number line:

$$\frac{x}{\sqrt{3} - \sqrt{5}} \leq \sqrt{3} + \sqrt{5}$$

- B) A piece of paper has shape of rectangle ABCD, BC = 44 cm, AB = 10 cm. If it was folded to form a right circular cylinder such that \overline{AB} is coincide on \overline{CD} . Find the volume of resulted cylinder? □

[Q4]

- A) Represents graphically the straight line which represents the relation $2X + 3Y = 6$, if it cut X-axis at point A, cut Y-axis at point B. find the area of $\triangle OAB$ where O is origin point

- B) If $X = \sqrt{7} + \sqrt{5}$, $XY = 2$. Find the value of $\frac{x+y}{xy}$

[Q5]

- A) Simplify to the simplest form:

$$\sqrt[3]{24} - 3\sqrt[3]{\frac{1}{9}} + \sqrt[3]{-81} - \sqrt[3]{3}$$

- B) Find the arithmetic mean for the following frequency distribution:

Wages	10–	20–	30–	40–	50–	Total
No. of worker	3	4	6	5	2	20

◆◆◆
(End of the questions

ALGEBRA – MODEL NO 5**[Q1] Choose the correct answer:****(1)** The irrational number included between 2, 3 is

- a) $\sqrt{10}$ b) $\sqrt{7}$ c) $\sqrt{3}$ d) 2.5

(2) The volume of sphere of diameter 1 cm is cm^3

- a) $\frac{1}{6} \pi$ b) $\frac{1}{8} \pi$ c) $\frac{4}{3} \pi$ d) $\frac{3}{4} \pi$

(3) If ordered pair (1, -2) satisfies the relation $5X + bY = 17$, then b =

- a) -6 b) -4 c) 4 d) 6

(4) If the arithmetic mean for five values is 12, then the sum of these values =

- a) 30 b) 50 c) 60 d) 120

(5) If $n \in \mathbb{Z}^+$, $n < \sqrt{11} < n + 1$, then n =

- a) -3 b) 3 c) 4 d) 10

[Q2] Complete each of the following:**1)** The slope of straight line parallel to X-axis equals**2)** $[-3, 2] - [-3, 2] = \dots\dots\dots$ **3)** The median of the values 34, 23, 25, 40, 22, 4 is**4)** The S.S of the equation $X^2 + 9 = 0$ in R is

[Q3]

A) If $X = \sqrt{7} + \sqrt{5}$, $XY = 2$. Find the value of $\frac{x+y}{xy}$

B) The volume of right circular cylinder is $72\pi \text{ cm}^3$, its height equals to its base radius. Find the height of the cylinder

[Q4]

A) Find the value of m which make the points $(4, -3)$, $(m, 7)$, $(5, -4)$ are collinear.

B) If $[a-3, a+b]$ is solution of $2 \leq X+1 \leq 8$

Find the value of A^B

[Q5]

A) Simplify to the simplest form:

$$\sqrt{125} + 2\sqrt[3]{81} - \sqrt{20} + 3\sqrt[3]{-24}$$

B) Find the arithmetic mean for the following frequency distribution:

Wages	4-	8-	12-	16-	20-	Total
No. of worker	12	4	8	6	4	20

◆◆◆
(End of the questions

ALGEBRA – MODEL No 6

[Q1] Choose the correct answer:

(1) If $X \in [-2, 2]$, then $X^2 \in \dots\dots\dots$

- a) $\{4\}$ b) $]0, 4[$ c) $[0, 4]$ d) $[-4, 4]$

(2) The slope of the straight line passing through $(3,2)$, $(1,3)$ is

- a) -2 b) 2 c) $-\frac{1}{2}$ d) $\frac{1}{2}$

(3) The S.S of the inequality $-2X \geq 6$ the interval $\dots\dots\dots$

- a) $[3, \infty[$ b) $]3, \infty[$ c) $] -\infty, 3[$ d) $] -\infty, -3]$

(4) If the upper boundary of a set is 30, its length 10 then its center is $\dots\dots\dots$

- a) 35 b) 25 c) 15 d) 20

(5) The S.S of the equation $\sqrt{2}X = 4$ in \mathbb{R} is $\{ \dots\dots\dots \}$

- a) $4\sqrt{2}$ b) $-2\sqrt{2}$ c) $2\sqrt{2}$ d) $\sqrt{2}$

[Q2] Complete each of the following:

1) If radius length of a sphere is 3 cm, then its volume is $\dots\dots\dots \pi \text{ cm}^3$

2) The slope of straight line which is parallel to Y- axis is $\dots\dots\dots$

3) If $X \in \mathbb{Z}$, number where $X < -\sqrt[3]{10} < X + 1$, then $X = \dots\dots\dots$

4) A Cuboid its base area is $5\sqrt{2} \text{ cm}^2$, its height is $3\sqrt{2} \text{ cm}$, then its

volume = $\dots\dots\dots$

[Q3]

- A)** If $X = 2 + \sqrt{3}$, $y = \frac{1}{x}$, find in simplest form without using calculator the value of $Xy - y^2$
-
- B)** Represent graphically the relation $y = 2 - 2X$, if this straight line passing through the point $(4, 2a)$ Find the value of a .
-

[Q4]

- A)** A metallic sphere with diameter 6 cm , its melted and convert to an circular cylinder its base radius is 3 cm. Find the height of the cylinder and its lateral area
-

- B)** Without using calculator, find in simplest form:

$$\sqrt{175} + 3\sqrt[3]{125} + \frac{35}{\sqrt{7}}$$

[Q5]

- A)** If $[a - 3, a + b]$ is solution of $2 \leq X + 1 \leq 8$, find the value of A^B
-

- B)** The following table shows the frequency distribution of the marks for 50 students in math test:

Sets	10 -	20 -	30 -	40 -	50 -	Sum
Frequency	8	12	2k	9	k	50

- Find: ① Value of K ② The arithmetic mean

◆◆◆
(End of the questions)

ALGEBRA — MODEL No 7

[30]

[Q1] Choose the correct answer:

(1) $[5, 7] - \{5\} = \dots\dots\dots$

- a) $]5, 7[$ b) $]5, 7]$ c) $[5, 7[$ d) $\{6, 7\}$

(2) $\sqrt{16} + \sqrt[3]{-64} = \dots\dots\dots$

- a) 8 b) Zero c) -8 d) ± 8

(3) The additive inverse of the number $(1 - \sqrt{6})$ is $\dots\dots\dots$

- a) $1 + \sqrt{6}$ b) $1 - \sqrt{6}$ c) $-1 - \sqrt{6}$ d) $-1 + \sqrt{6}$

(4) The irrational number lies between 3, 4 is $\dots\dots\dots$

- a) 3.5 b) $\frac{1}{8}$ c) $\sqrt{7}$ d) $\sqrt{10}$

(5) The volume of a sphere $= \frac{4}{3} \pi \text{ Cm}^3$, its radius length = $\dots\dots$ cm

- a) 1 b) 2 c) $\frac{4}{3}$ d) $\frac{3}{4}$

[Q2] Complete each of the following:

- 1) The intersection point of the ascending and descending cumulative frequency curves determines the ...on the set - axis.

2) $[-7, 1[\cup [-1, 2] = \dots\dots\dots$

3) The S.S of equation $X^3 + 5 = 13$ in \mathbb{R} is $\dots\dots\dots$ 4) The order of the median = $\frac{\dots\dots\dots}{2}$

[Q3]

A) Find S.S in \mathbb{R} in the form of an interval:

$$3 < 2X + 1 \leq 11$$

B) Find in the simplest form: $\sqrt{32} - \sqrt{72} + 6\sqrt{\frac{1}{2}}$

[Q4]

A) A right circular cylinder its height is 10 cm, its base radius length 7 cm. Find its volume.

B) If $X = \sqrt{7} - \sqrt{5}$, $Y = \sqrt{7} + \sqrt{5}$ Find the Value of: $\frac{x+y}{x-y-1}$

[Q5]

A) If (3, K) satisfies the relation $3X + 2Y = 7$. Find the value of K

B) The following table shows the marks of 40 students in one month in math.

Sets	5 -	15 -	25 -	35 -	45 -	Sum
Frequency	7	10	12	13	8	50

Find the arithmetic mean for that frequency distribution?

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End of the questions

ALGEBRA – MODEL NO 8

[Q1] Choose the correct answer:

(1) The remainder of subtracting $(-3X)$ from $3X$ equals

- a) Zero b) $6X$ c) $-6X$ d) $-39X^2$

(2) The straight line $Y + 2x = 4$ intersect X- axis in point

- a) $(0, 2)$ b) $(2, 0)$ c) $(4, 0)$ d) $(0, 4)$

(3) If $\sqrt[3]{x^2} = 4$, then $x =$

- a) 8 b) ± 8 c) 4 d) ± 4

(4) The S.S. in \mathbb{R} for the equation $X^2 - 4 = 0$ is.....

- a) $\{2\}$ b) $\{-2\}$ c) $\{2, -2\}$ d) \emptyset

(5) $\sqrt{5} + \sqrt{5} + \sqrt{5} =$

- a) $5\sqrt{5}$ b) $\sqrt{15}$ c) $\sqrt{45}$ d) 15

[Q2] Complete each of the following:

1) If $X < -\sqrt[3]{35} < X + 1$, x is an integer number, then $x =$ 2) If $(-b, b)$ satisfy the relation $y + 3x = 8$, then $b =$ 3) The volume of cube = 125 cm^3 , then its total area = cm^2 4) The S.S of the inequality $-X + 1 \leq 0$ in \mathbb{R} is

[Q3]

A) Simplify to the simplest form:

$$5\sqrt{3} + 2\sqrt{27} - 3\sqrt{12} - 6\sqrt{\frac{1}{3}}$$

B) If $X = \sqrt[3]{3} + 1$, $Y = \sqrt[3]{3} - 1$. Find the value of $(X + Y)^3$

[Q4]

A) Represent graphically the relation $y = 6 - x$, if the straight line passing through the point $(k, 2k)$ find the value of k ?**B) If $X = [-1, 4]$, $Y = [3, \infty[$, by using the number line find each of the following :**

① $X \cup Y$

② $X \cap Y$

③ $X - Y$

[Q5]

A) Find the solution set for the inequality in \mathbb{R} and represent it on the number line:

$$-5 \leq -2 + 3X \leq 1.$$

B) A right circular cylinder its volume is $40\pi \text{ cm}^3$, its height is 10 cm,**Find its lateral area in the form by π .**◆◆◆
End of the questions

ALGEBRA – MODEL No 9

[Q1] Choose the correct answer:

- (1) $[-2, 2] \cap \mathbb{Z}^+ = \dots\dots\dots$
- a) $\{1, 2\}$ b) $[1, 2]$ c) $\{0, 1, 2\}$ d) $[-2, 1]$
- (2) If the lowest boundary of a set is 6 and upper boundary is 10, then its center is.....
- a) 4 b) 6 c) 8 d) 16
- (3) The solution set of the equation $X^2 + 9 = 0$ in \mathbb{R} is
- a) $\{-3\}$ b) $\{3, -3\}$ c) $\{-9\}$ d) \emptyset
- (4) If the median for the values: $X + 1, X - 3, X + 5$ is 7, then $X = \dots$
- a) 2 b) 6 c) 7 d) 10
- (5) $\sqrt{16 + 9} = 4 + \dots\dots\dots$
- a) 1 b) 3 c) 4 d) 5

[Q2] Complete each of the following:

- 1) Slope of straight line passing through $A(5, 4), B(-1, 1)$ equals.....
- 2) If volume of cube is $3\sqrt{3} \text{ cm}^3$, then sum of its edges = cm
- 3) The mode for the values: 5, 1, 9, 4, 1 is
- 4) If $(1, K)$ satisfies the relation: $2X + 3Y = 1$, then $K = \dots\dots\dots$

[Q3]

- A) Find in \mathbb{R} the S.S of the inequality and represents the solution on the number line:

$$1 \leq 3 - 2X \leq 5$$

- B) If the volume of right circular cylinder is 360π , and its height 10 cm. find the length of its base radius and calculate its lateral area in term of π .

[Q4]

- A) If $X = \sqrt{13} + \sqrt{6}$, $XY = 1$

Find the value of the expression: $X^2 - 49Y^2$

- B) Simplify to the simplest form:

$$\sqrt{175} - \sqrt[3]{16} + \frac{35}{\sqrt{7}} + 2\sqrt[3]{8}$$

[Q5]

- A) If the slope of the straight line passing through D (4, 3), E (5, n) equals 3. Find the value of n?

- B) The following table shows the marks of 15 students in one month in math.

Sets	1 -	3 -	5 -	7 -	9 -	Sum
Frequency	2	3	X	4	1	15

- Find: ① The arithmetic mean ② Find value of X

◆◆◆
End of the questions

كيفية طباعة صفحات معينة من ملف معين

مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9



خطوة 1



خطوة 2
اختيار اسم
الطابعة
بتاعتك

خطوة 3
كتابة الصفحات
المراد طباعتها
نكتب رقم 4 ثم
نكتب الشرطة
دي - ثم نكتب 9

خطوة 4
اختيار نوع الورق



خطوة 5
اختيار A4



خطوة 6

حمل الآن

مجاناً وحصرياً

امتحانات رقم (2)

الترم الاول



ALGEBRA – MODEL No**1****Q1** Choose the correct answer:

(1) A right circular cylinder, its base radius **3** cm , height **5** cm, then its volume = cm^2

- a) 15π b) 75π c) 45π d) $\frac{3}{5}\pi$

(2) $\sqrt[3]{54} - \sqrt[3]{2} = \dots\dots\dots$

- a) $3\sqrt[3]{2}$ b) $2\sqrt[3]{2}$ c) 3 d) 2

(3) If the ordered pair **(2,k)** satisfy the relation **$Y - 2X = 1$** , then K =...

- a) 0 b) 3 c) 4 d) 5

(4) The conjugate of $\frac{1}{\sqrt{5}+2} = \dots\dots\dots$

- a) $\sqrt{5} + 2$ b) $\sqrt{5} - 2$ c) $2 - \sqrt{5}$ d) $-\sqrt{5}$

(5) If the slope of straight line passes through two points (3 , y) , (5 , - 2) equals **- 3** , then Y =

- a) 2 b) 4 c) 6 d) - 30

(6) The intersection point of ascending and descending cumulative frequency curves determines theon the set – axis.

- a) Median b) Mode c) Mean d) Order of median

Q2 Complete each of the following:

- 1) If the lowest boundary of a set is **8** and upper boundary is **12**, then its center is.....
- 2) If $\sqrt{x} = \sqrt{2} + 1$, then X =
- 3) The mode of the values 4 , 5 , 6 , 8 , 7 is
- 4) $\sqrt{2}$, $\sqrt{8}$, $\sqrt{18}$, $\sqrt{32}$, complete same pattern
- 5) If the median of a+2 , a+5, a+1, a+4, a+3 is **10**, then a =

Q3**A)** Find in \mathbb{R} the solution set of:

① $4 < 3x + 1 < 10$

② $(2x - 3)^3 = 125$

B) If volume of sphere $36\pi \text{ cm}^3$. Find the surface area in term of π ?**Q4****A)** Represent graphically the relation: $Y = 3 - 2X$ **B)** If $X = \frac{\sqrt{6} + \sqrt{5}}{\sqrt{6} - \sqrt{5}}$, prove that: $X + \frac{1}{x} = 22$ **Q5****A) Simplify to the simplest form:**

$$5\sqrt{3} + 2\sqrt{27} - 3\sqrt{12} - 6\sqrt{\frac{1}{3}}$$

B) The following table represents the frequency distribution of overtime pay for **30** workers

Set	15–	25–	35–	X–	55–	65–	75–	Total
Frequency	2	K + 1	5	8	6	4	2	30

find: ① Value of X, K ② The arithmetic mean

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End of the questions

ALGEBRA – MODEL No**2****Q1** Choose the correct answer:

- (1) The volume of cuboid whose dimensions $\sqrt{2}$, $\sqrt{3}$, $\sqrt{6}$ = ... cm³
a) 6 b) 36 c) $6\sqrt{6}$ d) $18\sqrt{2}$
- (2) $[-3, 4] \cap [2, 6] = \dots\dots\dots$
a) $[-3, 6]$ b) $[-3, 2]$ c) $[4, 6]$ d) $[2, 4]$
- (3) If the ordered pair (5,2) satisfy the relation $X+2Y=K$, then K =.....
a) 8 b) 9 c) 7 d) 6
- (4) If four times number is **48**, then third this number is
a) 2 b) 4 c) 6 d) 8
- (5) If the slope of straight line passes through two points $(-3, X)$, $(-1, 1)$ equals **2**, then X =
a) 2 b) 4 c) 6 d) -30
- (6) If the ordered of the median is fourth value, then number of these values is
a) 6 b) 7 c) 8 d) 9

Q2 Complete each of the following:

- 1) If the lowest boundary of a set is **10** and upper boundary is **30**, then its center is.....
- 2) If $X \in [-3, 2]$, then $X^2 \in \dots\dots\dots$
- 3) If the mode of the values 4 , 3 , $X+2$, 9 , 7 is **4** , then X =
- 4) If the X is even number, then the next even number to it is
- 5) The intersection point of ascending and descending cumulative frequency curves is (**50 , 132**) then the median is

Q3

A) Find in \mathbb{R} the solution set of the inequality then represents the solution on the number line:

$$\frac{x}{\sqrt{3} - \sqrt{5}} \leq \sqrt{3} + \sqrt{5}$$

B) A piece of paper has shape of rectangle **ABCD**, **BC = 44** cm, **AB = 10** cm. If it was folded to form a right circular cylinder such that \overline{AB} is coincide on \overline{CD} . **Find** the volume of resulted cylinder? \square

Q4

A) Represents graphically the straight line which represents the relation **$2X + 3Y = 6$** , if it cut X-axis at point **A**, cut Y-axis at point **B**. **find** the area of $\triangle OAB$ where O is origin point

B) If $\frac{x}{y} = \sqrt{3} - \sqrt{2}$, find the value of $\frac{x^2 + y^2}{xy}$.

Q5

A) Simplify to the simplest form:

$$\sqrt[3]{24} - 3\sqrt[3]{\frac{1}{9}} + \sqrt[3]{-81} - \sqrt[3]{3}$$

B) Find the arithmetic mean for the following frequency distribution:

Wages	10–	20–	30–	40–	50–	Total
No. of worker	3	4	6	5	2	20

◆◆◆
End of the questions

ALGEBRA – MODEL No**3****Q1** Choose the correct answer:**(1)** The irrational number included between **2** , **3** is

- a) $\sqrt{10}$ b) $\sqrt{7}$ c) $\sqrt{3}$ d) 2.5

(2) The volume of sphere of diameter **1** cm iscm³

- a) $\frac{1}{6} \pi$ b) $\frac{1}{8} \pi$ c) $\frac{4}{3} \pi$ d) $\frac{3}{4} \pi$

(3) If ordered pair **(1,-2)** satisfies the relation **5X+bY=17**, then b =.....

- a) - 6 b) - 4 c) 4 d) 6

(4) $\sqrt{\frac{1}{2}} + \sqrt{\frac{1}{2}} = \dots\dots\dots$

- a) 1 b) $2\sqrt{2}$ c) $\sqrt{\frac{1}{4}}$ d) $\sqrt{2}$

(5) If $n \in \mathbb{Z}^+$, $n < \sqrt{11} < n + 1$, then **n** =

- a) - 3 b) 3 c) 4 d) 10

(6) If the arithmetic mean for five values is **12**, then the sum of these values =

- a) 30 b) 50 c) 60 d) 120

Q2 Complete each of the following:**1)** The slope of straight line parallel to X-axis equals**2)** $[-3, 2] -]-3, 2[= \dots\dots\dots$ **3)** The median of the values 34 , 23 , 25 , 40 , 22 , 4 is**4)** If the mode of the values 5 , 7 , 8 , X^2 is 8, then 3 X =**5)** The sum of all real numbers in $[-80, 80] = \dots\dots\dots$

Q3

A) If $X = \sqrt{7} + \sqrt{5}$, $XY = 2$. Find the value of $\frac{x+y}{xy}$

B) The volume of right circular cylinder is $72\pi \text{ cm}^3$, its height equals to its base radius. Find the height of the cylinder

Q4

A) Find the value of **m** which make the points $(4, -3)$, $(m, 7)$, $(5, -4)$ are collinear.

B) Find in \mathbb{R} the solution set of the inequality then represents the solution on the number line:

$$\frac{3x+1}{6} < X+1 < \frac{3x+4}{2}$$

Q5

A) Simplify to the simplest form:

$$\sqrt{125} + 2\sqrt[3]{81} - \sqrt{20} + 3\sqrt[3]{-24}$$

B) Find the arithmetic mean for the following frequency distribution:

Wages	4–	8–	12–	16–	20–	Total
No. of worker	12	4	8	6	4	20

◆◆◆

End of the questions

ALGEBRA – MODEL No**4****Q1** Choose the correct answer:

(1) $\sqrt[3]{5\sqrt{5}} = \dots\dots\dots$

- a) $\sqrt{5}$ b) $2\sqrt{5}$ c) $3\sqrt{5}$ d) $5\sqrt{5}$

(2) $R - Q^{\setminus} = \dots\dots\dots$

- a) N b) Z c) Z^+ d) Q

(3) The slope of the straight line passes through (3 , 0) and (5 , -1) is

- a) -2 b) 2 c) $\frac{1}{2}$ d) $-\frac{1}{2}$

(4) If (2 , 1) satisfies the relation $aX - Y = 3$, then a = $\dots\dots\dots$

- a) 2 b) 1 c) -1 d) -2

(5) The mean of the values 3 , 4 , 5 , 6 , 7 is $\dots\dots\dots$

- a) 3 b) 5 c) 6 d) -5

(6) If $1 \in] - 3 , X [$, then X = $\dots\dots\dots$

- a) -1 b) 2 c) Zero d) 1

Q2 Complete each of the following:1) If $X \in Z^-$, $X^2 = 3$, then $(X + \sqrt{3})^2 = \dots\dots\dots$ 2) If $-2 < X < 2$, then $2X + 3 \in$ the interval $\dots\dots\dots$ 3) If $X^2 = 5$, then $(X + \sqrt{5})^2 = \dots\dots\dots$ or $\dots\dots\dots$ 4) The order of the median of frequency distribution is 40, then the total of frequency is $\dots\dots\dots$ 5) The mode of the values: 3, 5, 7 , 5 ,6 is $\dots\dots\dots$

Q3

A) Find the value in the simplest form:

$$\sqrt{18} + 3\sqrt[3]{\frac{1}{3}} - \sqrt{8} - \sqrt[3]{9}$$

B) A right circular cylinder its height is **20** cm, find its base radius length if its volume = $\frac{4}{9}$ the volume of a sphere its radius length 15 cm.

Q4

A) Find in \mathbb{R} the S.S of the equation:

$$\sqrt{5} \quad X + 1 = 6, \text{ then represent it on the number line.}$$

B) If $X = 2 + \sqrt{3}$, $Y = \frac{1}{2 + \sqrt{3}}$. Find the Value of: $\frac{(X+Y)^2}{2XY}$

Q5

A) Represent graphically the relation: $2X - Y = 3$

B) The following table shows the frequency distribution of the weekly wages of **50** workers in a factory:

Sets	5–	15–	25–	35–	45–	Sum
Frequency	7	10	12	13	8	50

~~Find~~ in pounds the **arithmetic mean** for the worker's wages?

◆◆◆
End of the questions

ALGEBRA – MODEL No**5****Q1** Choose the correct answer:(1) If $X \in [-2, 2]$, then $X^2 \in \dots\dots\dots$

- a) $\{4\}$ b) $]0, 4[$ c) $[0, 4]$ d) $[-4, 4]$

(2) The multiplicative inverse of $(\sqrt{3} - 2)$ is $\dots\dots\dots$

- a) $\sqrt{3} - 2$ b) $2 - \sqrt{3}$ c) $\sqrt{3} + 2$ d) $-\sqrt{3} - 2$

(3) The S.S of the inequality $-2X \geq 6$ the interval $\dots\dots\dots$

- a) $[3, \infty[$ b) $]3, \infty[$ c) $] -\infty, 3[$ d) $] -\infty, -3]$

(4) If the upper boundary of a set is **30**, its length **10** then its center is $\dots\dots\dots$

- a) 35 b) 25 c) 15 d) 20

(5) The slope of the straight line passing through $(3, 2)$, $(1, 3)$ is

- a) -2 b) 2 c) $-\frac{1}{2}$ d) $\frac{1}{2}$

(6) The S.S of the equation $\sqrt{2}X = 4$ in \mathbb{R} is $\{ \dots\dots\dots \}$

- a) $4\sqrt{2}$ b) $-2\sqrt{2}$ c) $2\sqrt{2}$ d) $\sqrt{2}$

Q2 Complete each of the following:

1) If the lowest boundary of a set is **4** and its center is **9**, then the upper boundary is $\dots\dots\dots$

2) The slope of straight line which is parallel to Y- axis is $\dots\dots\dots$

3) If $X \in \mathbb{Z}$, number where $X < -\sqrt[3]{10} < X + 1$, then $X = \dots\dots\dots$

4) If $m(15, 30)$ is the point of intersection for the two cumulative ascending and descending curve, then the median is $\dots\dots\dots$

5) A Cuboid its base area is $5\sqrt{2} \text{ cm}^2$, its height is $3\sqrt{2} \text{ cm}$, then its volume = $\dots\dots\dots$

Q3

A) If $X = 2 + \sqrt{3}$, $y = \frac{1}{x}$, **find** in simplest form without using calculator the value of $Xy - y^2$

B) Represent graphically the relation $y = 2 - 2x$, if this straight line passing through the point $(4, 2a)$ **Find** the value of a.

Q4

A) A metallic sphere with diameter **6** cm , its melted and convert to an circular cylinder its base radius is **3** cm. **Find** the height of the cylinder and its lateral area

B) Without using calculator, **find** in simplest form:

$$\sqrt{175} + 3\sqrt[3]{125} + \frac{35}{\sqrt{7}}$$

Q5

A) If $[a - 3, a + b]$ is solution of $2 \leq x + 1 \leq 8$, find the value of A^B

B) The following table shows the frequency distribution of the marks for **50** students in math test:

Sets	10 –	20 –	30 –	40 –	50–	Sum
Frequency	8	12	2k	9	k	50

Find: ① Value of K ② The arithmetic mean

◆◆◆
End of the questions

ALGEBRA – MODEL No**6****Q1** Choose the correct answer:(1) $(3, 2)$ didn't satisfy the relation

- a) $X + Y = 5$ b) $3Y - X = 3$ c) $X + Y = 7$ d) $Y - X = 1$

(2) The multiplicative inverse of $\frac{\sqrt{2}}{6}$ is

- a) $\sqrt{3}$ b) $3\sqrt{2}$ c) $2\sqrt{3}$ d) $\sqrt{6}$

(3) If $A - B = 3\sqrt{5}$, $A + B = \sqrt{5}$, then $A =$

- a) $4\sqrt{5}$ b) $3\sqrt{5}$ c) $\sqrt{5}$ d) $2\sqrt{5}$

(4) If the slope of straight line $aX + bY + c = 0$ is undefined then.....

- a) $a = b$ b) $a = 0$ c) $b = 0$ d) $a = -b$

(5) If the mode of the values $4, 5, a - 2, 3$ is 3 , then $a =$

- a) 2 b) 3 c) 4 d) 5

(6) $[1, 2] \cap [2, 5] =$

- a) \emptyset b) $\{2\}$ c) $\{0\}$ d) $\{1, 5\}$

Q2 Complete each of the following:1) If $X \in \mathbb{R}^+$, $X > X^2$, then $X \in] \dots, \dots [$ 2) If the surface area of sphere $= 9\pi \text{ cm}^2$, then its diameter =3) If $(\sqrt{x} + \sqrt{3})(\sqrt{x} - \sqrt{3}) = 8$, then $x =$ 4) If the point $(2, a)$ satisfy the relation $3X + y = 8$, then $a =$ 5) If $\sqrt[3]{x} = \sqrt{4}$ then $X =$

Q3

A) Represent graphically the relation $y = 4 - x$, from the graph find the intersecting points with two axis.

B) Without using calculator, find in simplest form:

$$4\sqrt{8} + 12\sqrt{\frac{1}{2}} - (\sqrt{2})^3$$

Q4

A) Find the solution set for the inequality $-1 \leq 3x + 2 \leq 8$ in \mathbb{R} and represent it on the number line.

B) A right circular cylinder its height **20** cm, find the length of its base radius if its volume equals $\frac{4}{9}$ volume of sphere with radius 15 cm

Q5

A) If the slope of straight line which passes through the points $(3, 3)$, $(K, 5)$, $(-1, m)$ equals 2, **find** the value of $K + m$

B) Find the arithmetic mean for the frequency distribution:

Sets	10–	20–	30–	40–	50–	Sum
Frequency	3	4	6	5	2	20

◆◆◆
End of the questions

ALGEBRA – MODEL No**7****Q1** Choose the correct answer:

(1) $[5, 7] - \{5\} = \dots\dots\dots$

- a) $]5, 7[$ b) $]5, 7]$ c) $[5, 7[$ d) $\{6, 7\}$

(2) $\sqrt{16} + \sqrt[3]{-64} = \dots\dots\dots$

- a) 8 b) Zero c) -8 d) ± 8

(3) The square with side length $\sqrt{5}$ it's Area= $\dots\dots\dots \text{cm}^2$

- a) 5 b) $\sqrt{5}$ c) 10 d) 25

(4) The irrational number lies between 3, 4 is $\dots\dots\dots$

- a) 3.5 b) $\frac{1}{8}$ c) $\sqrt{7}$ d) $\sqrt{10}$

(5) The volume of a sphere $= \frac{4}{3} \pi \text{ Cm}^3$, its radius length = $\dots\dots \text{cm}$

- a) 1 b) 2 c) $\frac{4}{3}$ d) $\frac{3}{4}$

(6) The additive inverse of the number $(1 - \sqrt{6})$ is $\dots\dots\dots$

- a) $1 + \sqrt{6}$ b) $1 - \sqrt{6}$ c) $-1 - \sqrt{6}$ d) $-1 + \sqrt{6}$

Q2 Complete each of the following:

- The intersection point of the ascending and descending cumulative frequency curves determines the ...on the set – axis.
- The arithmetic mean of the values: **2, 6, 5, 7, 10** is $\dots\dots\dots$
- $(\sqrt{6} + 1)^2 = 7 + \dots\dots\dots$
- The S.S of equation $X^3 + 5 = \mathbf{13}$ in \mathbb{R} is $\dots\dots\dots$
- The order of the median = $\frac{\dots\dots\dots}{2}$

Q3

A) Find **S.S** in \mathbb{R} in the form of an interval:

$$3 < 2X + 1 \leq 11$$

B) Find in the simplest form: $\sqrt{32} - \sqrt{72} + 6\sqrt{\frac{1}{2}}$

Q4

A) A right circular cylinder its height is **10** cm, its base radius length **7** cm. Find its volume.

B) If $X = \sqrt{7} - \sqrt{5}$, $Y = \sqrt{7} + \sqrt{5}$
Find the Value of: $\frac{x+y}{xy-1}$

Q5

A) If (3 , K) satisfies the relation $3X + 2Y = 7$. **Find** the value of K

B) The following table shows the marks of **40** students in one month in math.

Sets	5 –	15 –	25 –	35 –	45 –	Sum
Frequency	7	10	12	13	8	50

 Find the arithmetic mean for that frequency distribution?

◆◆◆
End of the questions

ALGEBRA – MODEL No**8****Q1** Choose the correct answer:**(1)** The remainder of subtracting $(-3X)$ from $3X$ equals

- a) Zero b) $6X$ c) $-6X$ d) $-39X^2$

(2) The straight line $Y + 2x = 4$ intersect X - axis in point

- a) $(0, 2)$ b) $(2, 0)$ c) $(4, 0)$ d) $(0, 4)$

(3) If $\sqrt[3]{x^2} = 4$, then $x =$

- a) 8 b) ± 8 c) 4 d) ± 4

(4) The S.S. in \mathbb{R} for the equation $X^2 - 4 = 0$ is.....

- a) $\{2\}$ b) $\{-2\}$ c) $\{2, -2\}$ d) \emptyset

(5) Number of edges of two adjacent faces of a cube equal.....

- a) 6 b) 7 c) 8 d) 12

(6) $\sqrt{5} + \sqrt{5} + \sqrt{5} =$

- a) $5\sqrt{5}$ b) $\sqrt{15}$ c) $\sqrt{45}$ d) 15

Q2 Complete each of the following:**1)** The mean for the values $a + 1$, a , $a - 1$ is **6**, then $a =$ **2)** If $X < -\sqrt[3]{35} < X + 1$, x is an integer number, then $x =$ **3)** If $(-b, b)$ satisfy the relation $y + 3x = 8$, then $b =$ **4)** The volume of cube = **125** cm^3 , then its total area = cm^2 **5)** The additive inverse of $\sqrt{5} - 2$ in simplest form is.....

Q3

A) Find the value of X :

$$X \sqrt[3]{2} = 2 \sqrt[3]{54} + 3 \sqrt[3]{-128} + 6 \sqrt[3]{16} - 6 \sqrt[3]{\frac{1}{4}}$$

B) If $X = \sqrt[3]{3} + 1$, $Y = \sqrt[3]{3} - 1$. **Find** the value of $(x + y)^3$

Q4

A) Represent graphically the relation $y = 6 - x$, if the straight line passing through the point $(k, 2k)$ **find** the value of k ?

B) If $X = [-1, 4]$, $y = [3, \infty[$, by using the number line **find** each of the following :

① $X \cup y$

② $X \cap y$

③ $X - y$

Q5

A) **Find** the solution set for the inequality in \mathbb{R} and represent it on the number line:

$$-5 \leq -2 + 3X \leq 1.$$

B) A right circular cylinder its volume is $40\pi \text{ cm}^3$, its height is 10 cm, **Find** its lateral area in the form by π .

◆ ◆ ◆
End of the questions

ALGEBRA – MODEL No**9****Q1** Choose the correct answer:

(1) $(1 - \sqrt{5})^2 + \frac{1}{\sqrt{5}} = \dots\dots$

- a) 2 b) 5 c) -4 d) 6

(2) If the lowest boundary of a set is **6** and upper boundary is **10**, then its center is.....

- a) 4 b) 6 c) 8 d) 16

(3) The solution set of the equation $X^2 + 9 = 0$ in \mathbb{R} is

- a) $\{-3\}$ b) $\{3, -3\}$ c) $\{-9\}$ d) \emptyset

(4) If the median for the values: $X + 1$, $X - 3$, $X + 5$ is **7**, then $X = \dots$

- a) 2 b) 6 c) 7 d) 10

(5) $[-2, 2] \cap \mathbb{Z}^+ = \dots\dots\dots \square$

- a) $\{1, 2\}$ b) $[1, 2]$ c) $\{0, 1, 2\}$ d) $[-2, 1]$

(6) $\sqrt{16 + 9} = 4 + \dots\dots$

- a) 1 b) 3 c) 4 d) 5

Q2 Complete each of the following:

- 1) Slope of straight line passing through **A(5,4)**, **B(-1,1)** equals.....
- 2) If volume of cube is $3\sqrt{3} \text{ cm}^3$, then sum of its edges = cm
- 3) The arithmetic mean for the values: **6, 4, 3, 7** is
- 4) The mode for the values: **5, 1, 9, 4, 1** is
- 5) If **(1, K)** satisfies the relation: $2X + 3Y = 1$, then **K =**

Q3

A) Find in \mathbb{R} the **S.S** of the inequality and represents the solution on the number line:

$$1 \leq 3 - 2X \leq 5$$

B) If the volume of right circular cylinder is 360π , and its height **10** cm. find the length of its base radius and calculate its lateral area in term of π .

Q4

A) If $X = \sqrt{13} + \sqrt{6}$, $XY = 1$

Find the value of the expression: $X^2 - 49Y^2$

B) Simplify to the simplest form:

$$\sqrt{175} - \sqrt[3]{16} + \frac{35}{\sqrt{7}} + 2\sqrt[3]{8}$$

Q5

A) If the slope of the straight line passing through **D (4 , 3)**, **E (5 , n)** equals **3**. Find the value of **n**?

B) The following table shows the marks of **15** students in one month in math.

Sets	1 –	3 –	5 –	7 –	9 –	Sum
Frequency	2	3	X	4	1	15

~~Find:~~ ① The arithmetic mean ② Find value of X

◆◆◆
End of the questions

ALGEBRA – MODEL No**10****Q1** Choose the correct answer:

- (1) If the edge length of cube is **10** cm, then its total area cm^2
 a) 100 b) 400 c) 600 d) 1000
- (2) The median for the values: **1 , 9 , 6 , 8** is
 a) 6 b) 7 c) 8 d) 9
- (3) The additive inverse of $\frac{10}{\sqrt{2}}$ in the simplest form is
 a) $5\sqrt{2}$ b) $-5\sqrt{2}$ c) $\frac{\sqrt{2}}{10}$ d) $\frac{\sqrt{2}}{5}$
- (4) If the lowest boundary of a set is **3** and its center is 6, then its upper boundary is.....
 a) Zero b) 6 c) 9 d) 12
- (5) $\{8, 9, 10\} -]8, 10[=$
 a) $\{8, 10\}$ b) \emptyset c) $\{9\}$ d) N
- (6) If the arithmetic mean for the values: 3 , m , 4 is **5**, then m =
 a) 2 b) 7 c) 8 d) 15

Q2 Complete each of the following:

- 1) $\sqrt{9} + \sqrt{16} = \sqrt{\dots\dots\dots}$
- 2) The slope of straight line is perpendicular to Y-axis equals.....
- 3) If the median order of a grouped frequency distribution is 10, then the sum of the frequencies is
- 4) If the mode for the values: $X - 3$, X , $X - 3$ is 3, then $X =$
- 5) If the ordered pair (-2 , 5) satisfies the relation $X + K Y = 3$, then $K =$

Q3

A) Find in \mathbb{R} the **S.S** of the inequality and represents the solution on the number line:

$$\frac{x+1}{\sqrt{3}-\sqrt{5}} \leq \sqrt{3} + \sqrt{5}$$

B) Find the radius length of sphere whose volume $288 \pi \text{ cm}^3$, then find its surface area in term of π .

Q4

A) If $X = \sqrt{5} - 2$, $XY = 1$

① Prove that: X, Y are two conjugate numbers

② The value of: $X^2 + Y^2$

B) Simplify to its simplest form:

$$\sqrt{50} + \frac{4}{\sqrt{2}} - 10\sqrt{\frac{1}{2}} + 2\sqrt{18}$$

Q5

A) If the slope of the straight line passing through $(3X, 5)$, $(2, 4X)$ equals **5**. Find the value of X

B) The following table shows the frequency distribution of the marks for **40** students in math test:

Sets	4 –	8 –	12 –	16 –	20 –	Sum
Frequency	5	9	X	8	6	40

Find: ① Value of X ② The arithmetic mean

◆ ◆ ◆
End of the questions

كيفية طباعة صفحات معينة من ملف معين مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9

